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ABSTRACT

This guide is designed to present a variety of techniques that can be used in conducting classroom observations. Observation techniques are clustered under four major teaching/learning variables: time on task, teacher talk, classroom interaction, and organization and management. Techniques are presented with an overview that details the rationale for their use, tips on how to use the techniques during classroom observations, and suggestions on how to analyze the data gathered. In reviewing the nature of the students and objectives, teaching strategies, and proposed materials for a lesson during a preobservation conference, it is recommended that the teacher and supervisor select the observation technique(s) that the supervisor will employ to gather data during the formal classroom observation which will provide a mirror for the teacher. (20 references) (SI)

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MIRRORS FOR THE CLASSROOM

a guide to observation techniques for teachers and supervisors

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INTRODUCTION

This guide is designed to present a variety of techniques that can be used in conducting classroom observations. Fifteen techniques have been selected that assist supervisory personnel in collecting objective descriptive data relating to teaching variables which research has indicated have significant impact on teaching effectiveness. The data gathered using the techniques provide a mirror for the classroom teacher and can form the basis for meaningful discussion between supervisor and supervisee that should result in the improvement of instruction in that teacher's classroom.

If supervision is to have any lasting impact, teachers must assume roles of participants, not spectators in the supervisory process. They must be stimulated psychologically to the point where they want to do something about those observation data that are shared with them. Supervisors must play the role of facilitators in helping their teachers accept responsibility for improvement.

Observation techniques are clustered under four major teaching/learning variables: time on task, teacher talk, classroom interaction, and organization and management. Techniques are presented with an overview which details the rationale for their use, tips on how to use the techniques during classroom observations, and suggestions on how to analyze the data gathered.

All of the techniques work most effectively when incorporated into a clinical supervision cycle. In reviewing the nature of the students and objectives, teaching strategies, and proposed materials for a lesson during a preobservation conference, the teacher and supervisor should select the observation technique(s) that the supervisor will employ to gather data during the formal classroom observation and that will provide a mirror for the teacher. What is seen in that mirror or the data collected becomes the basis for the analysis and postobservation conference phases of the clinical supervision cycle. This analysis may then be used as part of the teacher's formative evaluation, or when gathered over time, as objective data on which to base a valid summative evaluation.

The author has drawn heavily from his own personal experience as a supervisor in the preparation of this guide. Most of the classroom examples are actual case studies from classroom visits. The author gratefully acknowledges his training under John Hansen, formerly of the College of Education at the University of Oregon, who introduced him to many of the techniques included in this guide and to graduate students and supervisors with whom he has worked for their feedback and recommendations that resulted in this revision.

TIME ON TASK

How do teachers and students spend time?

Several studies on teaching effectiveness have concluded that time is a critical variable which influences student achievement. Student achievement increases when students are put into contact with relevant curriculum materials and when that contact is sustained.

Since there is only a fixed amount of time available for instruction, its effective use is crucial. The more time spent on nonteaching/ nonlearning activities such as irrelevant talk, unclear directions, or distribution of materials, the less learning will occur. Time spent on relevant content and activities and in direct instruction is essential to achievement.

Time may be considered in a broad sense, that is the time the teacher allocates for instruction in a particular subject, or, more narrowly, as the time in which the student is at task or engaging directly in an academic activity.

Two techniques for classroom observations are presented: engaged time and at task. The first focuses on the net time the teacher actually provides for academic activity while the latter examines what the student does with that time.

ENGAGED TIME

In conducting an observation a simple log may be kept of the activities which go on during a particular class period. It can be used to determine the actual amount of time in which the students were involved in academically relevant tasks.

In order to determine the academically engaged time, the number of minutes in which nonacademic discussion/activities were conducted is subtracted from the length of the class period. Exhibit 1 indicates a 45 minute class with 17 minutes diverted for settling in seats (9:02-9:05), attendance (9:05-9:07), discussion of Super Bowl (9:07-9:16), student scuffle (9:34-9:35), and math league question (9:45-9:47), or a total of 28 academically engaged minutes.

In analyzing the data with a teacher, the supervisor should present the log without any value judgments to the teacher, discussing its implications over the period of a week, semester, or year and whether this is a representative example. Ways of increasing academically engaged time which may be provided for students should then be explored.

AT TASK

At task, also known as task analysis is another effective technique for gathering data on academicallay engaged time in the classroom. Its use was pioneered at Stanford Unverisity by Frank McGraw in the 1960s using photographs taken with a 35-mm camera equipped with a wide-angle lens. Refinements on a pencil and paper version were done by Ray Hull and John Hansen at the University of Oregon.

The purpose of "at task" is to provide information relating to student orientation to assigned or expected tasks. In using this sytem, a supervisor codes types of expected student behavior and records this coded student behavior at regular intervals over a given period of time. Three minutes has been found to be satisfactory as an interval of time, but this interval will vary with the type of activity and the nature of the data sought. Although a

9:02	Bell rings to indicate beginning of second period. Students talk to each other. Teacher sits at desk.
9:05	Attendance
9:07	Teacher comments on previous day's Super Bowl game.
9:11	Student comments on game.
9:16	Math example put on chalkboard; teacher asks students to try to solve it.
9:19	Small group of students go to chalkboard while rest continue to work at seats.
9:23	Students explain work they had done on chalkboard; teacher comments; other students indicate whether they used this technique or not.
9:26	Teacher presents several examples of technique; students appear to listen, some take notes.
9:32	Teacher puts another example on chalkboard; selects small group to work at board while others work at seat.
9:34	Teacher referees scuffle between two girls over whom is copying whose work.
9:35	Normalcy returns.
9:40	Teacher reviews examples done on board; comments, and asks for questions. Gives homework assignment which students may now begin; told to raise hands if they have questions.
9:45	Student asks whether math league is scheduled for practice today.
9:47	Teacher begins to respond to question as the bell rings signaling the end of second period.

EXHIBIT 1 ENGAGED TIME IN MATH CLASS

twenty to thirty minute period will usually provide an adequate sample of classroom behavior, observations conducted throughout the class period will provide more complete data.

At task uses a modified classroom seating chart as shown in Exhibit 2. The supervisor begins by completing the chart so that some indication is made of the name or sex of each student, determining the frequency of intervals at which points observations will be made, and what behavior(s) will be noted.

The most simple differentiation is "at task" and "not at task." As shown in Exhibit 3, the supervisor examines the behavior of each student for a few seconds every three minutes, determines whether that behavior is or is not "at task," and then using a code records the observation on the chart. At times, that determination is somewhat subjective since, for example, some students might appear to be listening to directions when in fact they might be daydreaming or vice versa.

The numerals on the chart represent the observation intervals while the letters represent the behavior described in the legend. For example, the notation 4B indicates that this is the fourth observation interval (4) and that the student was not at task (B). It is essential that the observer note the observation intervals and the behaviors in their respective places on the chart.

The data from Exhibit 3 may be analyzed by constructing a simple matrix, as depicted in Exhibit 4. Note that the matrix details behavior at each interval in a convenient format as well as the high, low, and mode.

More precise information may be gathered by breaking down each type of appropriate or inappropriate behavior. For example, Exhibit 5 shows three types of appropriate at task behavior and four types of behavior which would not be considered at task. The matrix in Exhibit 6 depicts a simple analysis of these observations.

During the postobservation conference the supervisor should share both the observation chart as well as the summary matrix with the teacher. Comments from the teacher should be encouraged along with what generalizations can be drawn on the basis of the data. Teachers generally can give a great deal of insight into some student's behavior and are often quite suprised at what the data show.

At task can be modified to be used in group work by simply changing the seating chart so that a box or boxes represent a set of students rather than an individual and that appropriate behaviors are coded. At task has also been found to be a very useful technique in observing business education, home economics, industrial arts, and science lab classes as well as classes which are organized to provide individualized instruction.

CLASSROOM INTERACTION

How well do teachers communicate with students?

The nature of classroom interaction has been found to have had a significant impact on learning.[2] The use of student ideas and the role of the teacher in classroom discussions have been the subject of extensive research.

Techniques for collecting and coding data on classroom interaction range from formalized category systems such as the Flanders Interaction Analysis system to the simple T-S

Teacher _____

Date _____

Activity _____

Time of Observation _____

Observation Interval _____

Intervals

No.	Time	No.	Time
1		8	
2		9	
3		10	
4		11	
5		12	
6		13	
7		14	

Code

A

B

C

D

E

F

G

H

1-	8-	1-	8-	1-	8-	1-	8-	1-	8-	1-	8-
2-	9-	2-	9-	2-	9-	2-	9-	2-	9-	2-	9-
3-	10-	3-	10-	3-	10-	3-	10-	3-	10-	3-	10-
4-	11-	4-	11-	4-	11-	4-	11-	4-	11-	4-	11-
5-	12-	5-	12-	5-	12-	5-	12-	5-	12-	5-	12-
6-	13-	6-	13-	6-	13-	6-	13-	6-	13-	6-	13-
7-	14-	7-	14-	7-	14-	7-	14-	7-	14-	7-	14-
1-	8-	1-	8-	1-	8-	1-	8-	1-	8-	1-	8-
2-	9-	2-	9-	2-	9-	2-	9-	2-	9-	2-	9-
3-	10-	3-	10-	3-	10-	3-	10-	3-	10-	3-	10-
4-	11-	4-	11-	4-	11-	4-	11-	4-	11-	4-	11-
5-	12-	5-	12-	5-	12-	5-	12-	5-	12-	5-	12-
6-	13-	6-	13-	6-	13-	6-	13-	6-	13-	6-	13-
7-	14-	7-	14-	7-	14-	7-	14-	7-	14-	7-	14-
1-	8-	1-	8-	1-	8-	1-	8-	1-	8-	1-	8-
2-	9-	2-	9-	2-	9-	2-	9-	2-	9-	2-	9-
3-	10-	3-	10-	3-	10-	3-	10-	3-	10-	3-	10-
4-	11-	4-	11-	4-	11-	4-	11-	4-	11-	4-	11-
5-	12-	5-	12-	5-	12-	5-	12-	5-	12-	5-	12-
6-	13-	6-	13-	6-	13-	6-	13-	6-	13-	6-	13-
7-	14-	7-	14-	7-	14-	7-	14-	7-	14-	7-	14-
1-	8-	1-	8-	1-	8-	1-	8-	1-	8-	1-	8-
2-	9-	2-	9-	2-	9-	2-	9-	2-	9-	2-	9-
3-	10-	3-	10-	3-	10-	3-	10-	3-	10-	3-	10-
4-	11-	4-	11-	4-	11-	4-	11-	4-	11-	4-	11-
5-	12-	5-	12-	5-	12-	5-	12-	5-	12-	5-	12-
6-	13-	6-	13-	6-	13-	6-	13-	6-	13-	6-	13-
7-	14-	7-	14-	7-	14-	7-	14-	7-	14-	7-	14-
1-	8-	1-	8-	1-	8-	1-	8-	1-	8-	1-	8-
2-	9-	2-	9-	2-	9-	2-	9-	2-	9-	2-	9-
3-	10-	3-	10-	3-	10-	3-	10-	3-	10-	3-	10-
4-	11-	4-	11-	4-	11-	4-	11-	4-	11-	4-	11-
5-	12-	5-	12-	5-	12-	5-	12-	5-	12-	5-	12-
6-	13-	6-	13-	6-	13-	6-	13-	6-	13-	6-	13-
7-	14-	7-	14-	7-	14-	7-	14-	7-	14-	7-	14-

EXHIBIT 2 AT TASK ANALYSIS

Teacher _____

Date _____

Activity SCIENCE INVESTIGATION
3rd GRADE SCIS UNIT

Time of Observation 1:00 - 1:25

Observation Interval 3 MINUTES

Intervals

No.	Time	No.	Time
1	1:00	8	1:21
2	1:03	9	
3	1:06	10	
4	1:09	11	
5	1:12	12	
6	1:15	13	
7	1:18	14	

Code

A AT TASK

B NOT AT TASK

C

D

E

F

G

H

1-	8-	1- A	8- A	1- A	8- B	1- A	8- A	1- B	8- B	1- A	8- B
2-	9-	2- A	9-	2- A	9-	2- A	9-	2- B	9-	2- A	9-
3-	10-	3- A	10-	3- A	10-	3- A	10-	3- A	10-	3- A	10-
4-	11-	4- A	11-	4- B	11-	4- A	11-	4- A	11-	4- A	11-
5-	12-	5- A	12-	5- B	12-	5- A	12-	5- A	12-	5- A	12-
6-	13-	6- A	13-	6- B	13-	6- A	13-	6- A	13-	6- A	13-
7-	14-	7- A	14-	7- B	14-	7- B	14-	7- A	14-	7- A	14-
		Tim		Bob		Nancy		Helga		Eunice	
1-	8-	1- A	8- B	1- A	8- A	1- A	8- A	1- A	8- B	1- A	8- B
2-	9-	2- A	9-	2- A	9-	2- A	9-	2- A	9-	2- A	9-
3-	10-	3- B	10-	3- A	10-	3- A	10-	3- A	10-	3- A	10-
4-	11-	4- B	11-	4- A	11-	4- A	11-	4- A	11-	4- A	11-
5-	12-	5- B	12-	5- A	12-	5- A	12-	5- A	12-	5- A	12-
6-	13-	6- B	13-	6- A	13-	6- A	13-	6- A	13-	6- A	13-
7-	14-	7- A	14-	7- A	14-	7- A	14-	7- B	14-	7- B	14-
		David		Eileen		Terrance		Joe		Betty	
1-	8-	1- A	8- B	1- B	8- B	1- A	8- A	1- A	8- A	1- A	8- A
2-	9-	2- A	9-	2- B	9-	2- B	9-	2- A	9-	2- A	9-
3-	10-	3- A	10-	3- B	10-	3- B	10-	3- A	10-	3- A	10-
4-	11-	4- A	11-	4- A	11-	4- A	11-	4- A	11-	4- A	11-
5-	12-	5- A	12-	5- A	12-	5- A	12-	5- A	12-	5- A	12-
6-	13-	6- A	13-	6- B	13-	6- B	13-	6- A	13-	6- A	13-
7-	14-	7- A	14-	7- B	14-	7- A	14-	7- A	14-	7- A	14-
		Joyce		Anne		Mary		Frank		Priscilla	
1-	8-	1- A	8- A	1- A	8- B	1- A	8- B	1- A	8- B	1- A	8- B
2-	9-	2- A	9-	2- A	9-	2- A	9-	2- A	9-	2- A	9-
3-	10-	3- A	10-	3- B	10-	3- A	10-	3- A	10-	3- A	10-
4-	11-	4- B	11-	4- B	11-	4- B	11-	4- A	11-	4- A	11-
5-	12-	5- A	12-	5- A	12-	5- A	12-	5- A	12-	5- A	12-
6-	13-	6- A	13-	6- A	13-	6- B	13-	6- A	13-	6- A	13-
7-	14-	7- A	14-	7- B	14-	7- B	14-	7- B	14-	7- B	14-
		Ellen		Noreen		Steve		Dick		Andy	
1-	8-	1-	8-	1-	8-	1-	8-	1-	8-	1-	8-
2-	9-	2-	9-	2-	9-	2-	9-	2-	9-	2-	9-
3-	10-	3-	10-	3-	10-	3-	10-	3-	10-	3-	10-
4-	11-	4-	11-	4-	11-	4-	11-	4-	11-	4-	11-
5-	12-	5-	12-	5-	12-	5-	12-	5-	12-	5-	12-
6-	13-	6-	13-	6-	13-	6-	13-	6-	13-	6-	13-
7-	14-	7-	14-	7-	14-	7-	14-	7-	14-	7-	14-

EXHIBIT 3 AT TASK ANALYSIS OF SCIENCE LESSON

	1:00	1:03	1:06	1:09	1:12	1:15	1:18	1:21
At Task	18	17	16	15	18	15	11	8
Not At Task	2	3	4	5	2	5	9	12

Behavior	High	Low	Mode
A - At Task	18	8	18
B - Not at Task	12	1	5

-7-

EXHIBIT 4
AT TASK: SUMMARY DATA

Teacher _____

Date _____

Activity INIDIVIDUALIZED ENGLISH
(lowest level group of sophomores)
Time of Observation 9:45-10:30

Observation Interval 3 MINUTES

Intervals

No.	Time	No.	Time
1	9:48	8	10:09
2	9:51	9	10:12
3	9:54	10	10:15
4	9:57	11	
5	10:00	12	
6	10:03	13	
7	10:06	14	

Code

A Reading or writing

B At learning center with tape recorder

C Conferencing with Teacher

D Chatting with neighbor

E Head on desk - sleeping?

F Sitting and gazing out the window

G Out of room

H

M: Male Student
F: Female Student

1-	8-	1-A	8-A	1-C	8-A	1-A	8-A	1-B	8-A	1-A	8-A
2-	9-	2-A	9-A	2-C	9-A	2-A	9-F	2-A	9-G	2-A	9-A
3-	10-	3-A	10-A	3-A	10-A	3-A	10-F	3-B	10-A	3-C	10-A
4-	11-	4-A	11-	4-D	11-	4-D	11-	4-B	11-	4-C	11-
5-	12-	5-A	12-	5-A	12-	5-A	12-	5-G	12-	5-C	12-
6-	13-	6-A	13-	6-A	13-	6-A	13-	6-A	13-	6-C	13-
7-	14-	7-A F	14-	7-A F	14-	7-A F	14-	7-B	14-	7-A F	14-
1-	8-	1-A F	8-C	1-A M	8-A	1-A M	8-A	1-A M	8-A	1-A M	8-A
2-	9-	2-A	9-C	2-A	9-A	2-A	9-A	2-A	9-A	2-A	9-A
3-	10-	3-A	10-A	3-A	10-A	3-A	10-A	3-A	10-A	3-A	10-A
4-	11-	4-A	11-	4-A	11-	4-A	11-	4-A	11-	4-A	11-
5-	12-	5-A	12-	5-A	12-	5-A	12-	5-A	12-	5-A	12-
6-	13-	6-A	13-	6-A	13-	6-A	13-	6-A	13-	6-A	13-
7-	14-	7-C	14-	7-A	14-	7-A	14-	7-A	14-	7-A	14-
1-	8-	1-A M	8-A	1-E M	8-A	1-A M	8-A	1-B F	8-A	1-A F	8-A
2-	9-	2-A	9-A	2-A	9-A	2-A	9-A	2-B	9-A	2-A	9-A
3-	10-	3-A	10-A	3-A	10-G	3-A	10-G	3-F	10-A	3-A	10-A
4-	11-	4-A	11-	4-B	11-	4-A	11-	4-A	11-	4-A	11-
5-	12-	5-B	12-	5-A	12-	5-A	12-	5-A	12-	5-A	12-
6-	13-	6-B	13-	6-A	13-	6-A	13-	6-A	13-	6-A	13-
7-	14-	7-A	14-	7-A	14-	7-A	14-	7-A	14-	7-A	14-
1-	8-	1-A	8-A	1-A	8-A	1-A	8-A	1-	8-	1-	8-
2-	9-	2-A	9-A	2-A	9-A	2-A	9-A	2-	9-	2-	9-
3-	10-	3-A	10-A	3-A	10-A	3-A	10-A	3-	10-	3-	10-
4-	11-	4-A	11-	4-A	11-	4-A	11-	4-	11-	4-	11-
5-	12-	5-A	12-	5-A	12-	5-A	12-	5-	12-	5-	12-
6-	13-	6-A	13-	6-A	13-	6-A	13-	6-	13-	6-	13-
7-	14-	7-A M	14-	7-A M	14-	7-A F	14-	7-	14-	7-	14-
1-	8-	1-	8-	1-	8-	1-	8-	1-	8-	1-	8-
2-	9-	2-	9-	2-	9-	2-	9-	2-	9-	2-	9-
3-	10-	3-	10-	3-	10-	3-	10-	3-	10-	3-	10-
4-	11-	4-	11-	4-	11-	4-	11-	4-	11-	4-	11-
5-	12-	5-	12-	5-	12-	5-	12-	5-	12-	5-	12-
6-	13-	6-	13-	6-	13-	6-	13-	6-	13-	6-	13-
7-	14-	7-	14-	7-	14-	7-	14-	7-	14-	7-	14-

EXHIBIT 5 14
AT TASK ANALYSIS OF INDIVIDUALIZED ENGLISH

		9:48	9:51	9:54	9:57	10:00	10:03	10:06	10:09	10:12	10:15
A.	Reading or writing	14	16	15	13	15	16	16	17	15	14
B.	At learning center	2	1	1	2	1	1	1	0	0	0
C.	Conferencing with teacher	1	1	1	1	1	1	1	1	1	1
D.	Chatting	0	0	0	2	0	0	0	0	0	0
E.	Head on desk	1	0	0	0	0	0	0	0	0	0
F.	Gazing out window	0	0	1	0	0	0	0	0	1	1
G.	Out of room	0	0	0	0	1	0	0	0	1	2

	Behavior	High	Low	Mode
A.	Reading or writing	17	13	-
B.	At learning center	2	1	1
C.	Conferencing with teacher	1	1	1
D.	Chatting	2	0	0
E.	Head on desk	1	0	0
F.	Gazing out window	1	0	0
G.	Out of room	2	1	0

EXHIBIT 6 AT TASK: SUMMARY DATA

category system. These systems enable the observer to code the verbal flow in the class in categories such as teacher lecture, teacher question, student answer, or student question. Some techniques enable the supervisor and the teacher to focus on the location of that interaction. The techniques also enable teachers to discover biases in their own verbal behavior and differences among students in verbal participation.

Three techniques are presented here: the T-S category system, verbal flow, and Flanders Interaction Analysis.

T-S

One of the most simple classroom observation techniques which may be used effectively to code classroom interaction is also one that is used heavily.

T-S requires the observer to code all of the talk during a classroom discussion as "T" representing the techer and "S" representing the students. A new symbol should be used each time the substance or the nature of talk changes. This category system may be refined further by using sub points to denote different students who contribute to the discussion (S_1, S_2, S_3, S_4, etc.) or (S_{Mary}, S_{Jack}, etc.) or teacher questions ($T_?$).

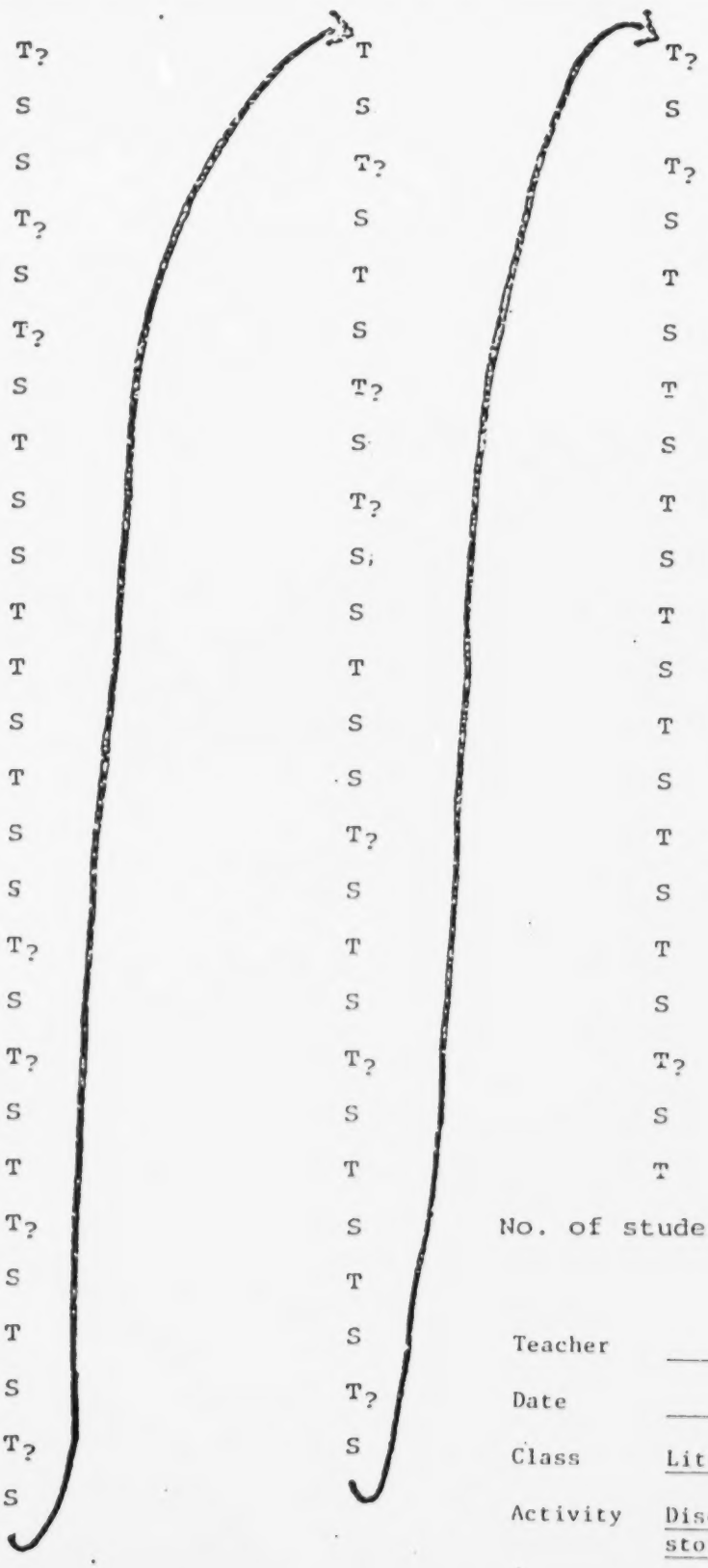
Exhibit 7 shows the discussion pattern in a junior high school classroom in which there was a current events discussion. The teacher began the lesson by asking a question ($T_?$) to which two students (S) then responded. A set of two additional questions was asked and responded to before the teacher commented (T) on a response and the lesson proceded. In analyzing this example or any classroom discussion it is important to note that many different verbal patterns may contribute to effective teaching. The problems arise when a teacher believes he or she is having a discussion but discovers that 90% of the interaction is the teacher's, when the same pattern is used daily, or when the analysis indicates that the teacher relies on the same students continually.

An important criterion to be used in examining these data in the postobservation conference must be the sequence hypothesized as optimum by the teacher in the preobservation conference. For example, in analyzing the interactions in Exhibit 7, one notes that there are 74 instances of student and teacher talk and that the interaction pattern is predominantly T-S (22 instances as compared to 5 instances of T-S-S interaction). The students raised 3 questions and the teacher asked 15 questions. If the teacher expected one sequence and got another, then something needs changing.

VERBAL FLOW

Research suggests that teachers generally call upon students they perceive as high achievers more than those they perceive as low achievers. Students who are considered low achievers soon realize that they are less apt to be called upon particularly if they look puzzled. Research, however, also shows that teacher expectations and active involvement of these students can have a significant impact on their achievement.[3]

The discussion pattern, or as Acheson and Gall refer to it, the verbal flow technique[4], allows the supervisor to collect more detailed information about the specific characteristics of the responses and, to some extent, the respondents. Because it uses a modified classroom seating chart, this technique also depicts the location of the responses.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In using verbal flow the supervisor begins by making a notation of the name, sex, or perhaps some other physical characteristic of each student and then uses symbols similar to those in Exhibit 8 to note the flow of each verbal interaction. The base of the arrow indicates the direction from which the interaction is initiated and the point of the arrow indicates the person to whom the comment was directed. Elaborations are made upon the arrow to make the coding more precise.

An analysis of Exhibit 9 may be summarized as follows:

1. Forty student contributions were made by eleven students.
2. Nineteen students made no verbal contributions.
3. Thirty of the contributions (75%) came from students in the front half of the room.
4. The teacher only "called on" males - five of them, all in the front of the room.
5. Students, four of them, asked five questions.
6. Ten times the students talked to each other rather than taking part in thediscussion eight of these social contacts took place in the back half of the class.
7. Females outnumber males but only accounted for seventeen of student contributions.

The postobservation conference could therefore focus on the following areas:

1. The degree of student involvement: The number of students from the total class who participated in the discussion: Did some students dominate the discussion? Male/female balance?
2. The verbal flow: Did students volunteer or were they called upon?
3. The nature of the response: Was it relevant or correct? Did students ask questions?
4. Location of the respondents: Some researchers have found that the majority of both emitters and targets of interaction are seated in the front and center of the classroom and that those students seated around the periphery of the room play a much less active role. Is this the case here?
5. The extent of incidental peer discussion without the teacher's permission: To what extent did this occur?

It would be assumed that in addition to the analysis, discussion could also focus on how improvement might be made in any of the areas noted.

INTERACTION ANALYSIS

This system, developed by Ned A. Flanders and refined with the assistance of E. J. Amidon, is concerned with verbal behavior. It is based on the assumption that the verbal behavior of individuals is an adequate sample of their total behavior.

Teacher_____

Date_____

Activity_____

Key: M Male

F Female

Student volunteered a relevant or correct response

Student volunteered an irrelevant or incorrect response

Student volunteered a question

Student responded to a teacher question appropriately

Student responded to a teacher question inappropriately

Students connected by line talked to each other without the teacher's permission

One student talked to a neighbor without permission

One student talked to a neighbor thrice without permission

EXHIBIT 8 VERBAL FLOW

Key:
- M — Male
- F — Female
- Student volunteered a relevant or correct response
- Student volunteered an irrelevant or incorrect response
- Student volunteered a question
- Student responded to a teacher question appropriately
- Student responded to a teacher question inappropriately
- Students connected by line talked to each other without the teacher's permission
- One student talked to a neighbor without permission
- One student talked to a neighbor thrice without permission

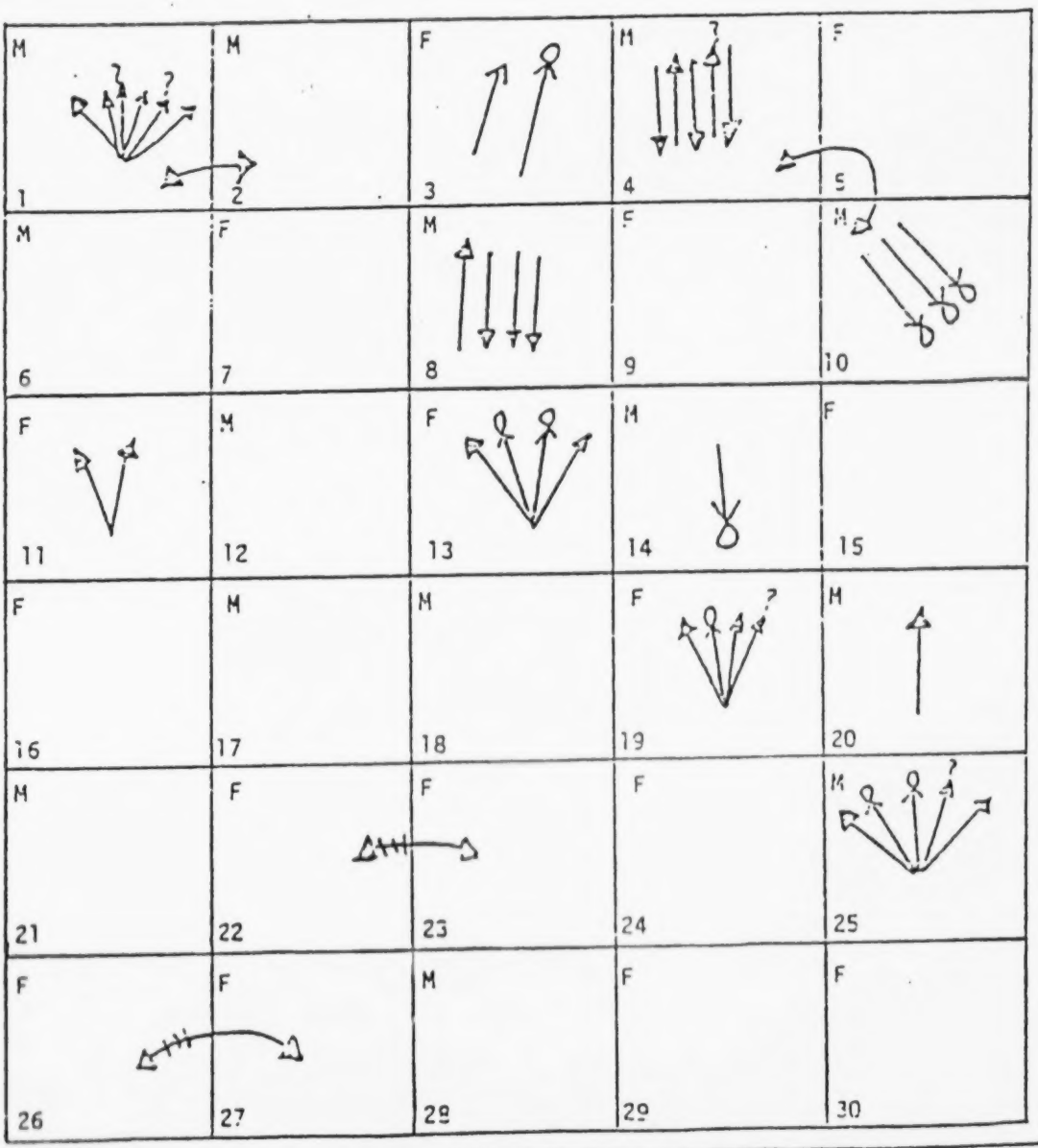


EXHIBIT 9 VERBAL FLOW OF SOCIAL STUDIES LESSON

In the Flanders system of interaction analysis observation all teacher statements are classified first as either indirect or direct. This classification gives central attention to the amount of freedom teachers grant to students. In a given situation, therefore, teachers have a choice. They can be direct, minimizing the freedom of the student to respond, or they can be indirect, maximizing the freedom of the student to respond. The choice, conscious or unconscious, depends upon many factors, among which are perceptions of the classroom interaction and the goals of the particular learning situation.

In order to make total behavior or total interaction in the classroom meaningful, the Flanders system also provides for the categorizing of student talk. A third major section, that of silence or confusion, is included in order to account for the time spent in behavior other than that which can be classified as either teacher or student talk.

As shown in Exhibit 10, the larger sections of teacher and student verbal behavior are subdivided in order to make the total pattern of teacher-pupil interaction more meaningful. The two subdivisions for teacher verbal behavior, indirect and direct teacher talk, are further divided into smaller categories. Indirect influence consists of four observation categories: (1) accepting feeling, (2) praising or encouraging, (3) accepting ideas, and (4) asking questions. Direct influence is divided into three categories: (5) lecturing, (6) giving directions, and (7) criticizing or justifying authority. Student talk is divided into only two categories: (8) responding to teacher, and (9) initiating talk. All categories are mutually exclusive; yet together they are totally inclusive of all verbal interaction occurring in the classroom.

No attempt is made here to provide detailed instructions on how to use IA. Exhibits 11-13 show examples of three stages in the collection and analysis of the data: Exhibit 11: the tally sheet which is used to categorize the interaction every three seconds working down each column; Exhibit 12: the working matrix used to combine tallies; and Exhibit 13: the finished matrix showing the number of tallies in each category as well as the percentage of indirect and direct teacher talk, student talk, and anything other than student or teacher talk.

In Exhibit 13 one notes that there is a good balance of teacher (51%) and student (47%) talk and that the teacher encourages the flow of interaction by accepting and using student ideas (category 3). Note also that in column 8 student talk is followed most often by praise (7 instances in column 2), the use of those ideas by the teacher (15 tallies in column 3) and more student talk (115 tallies in column 8). Indirect interaction exceeds direct influence.

Interaction analysis is both simple and complex. Those interested in training in the system might obtain further information by obtaining the source listed in the Notes.6

TEACHER TALK

How well does the teacher communicate?

In one of his studies Flanders reported that someone is talking two-thirds of the time spent in an average class. Two-thirds of that time involves a teacher lecturing, giving directions or other direct speaking to students. He also found that teachers of higher ability students talk 55% of the time while those working with less able students require their students to listen 80% of the time.7

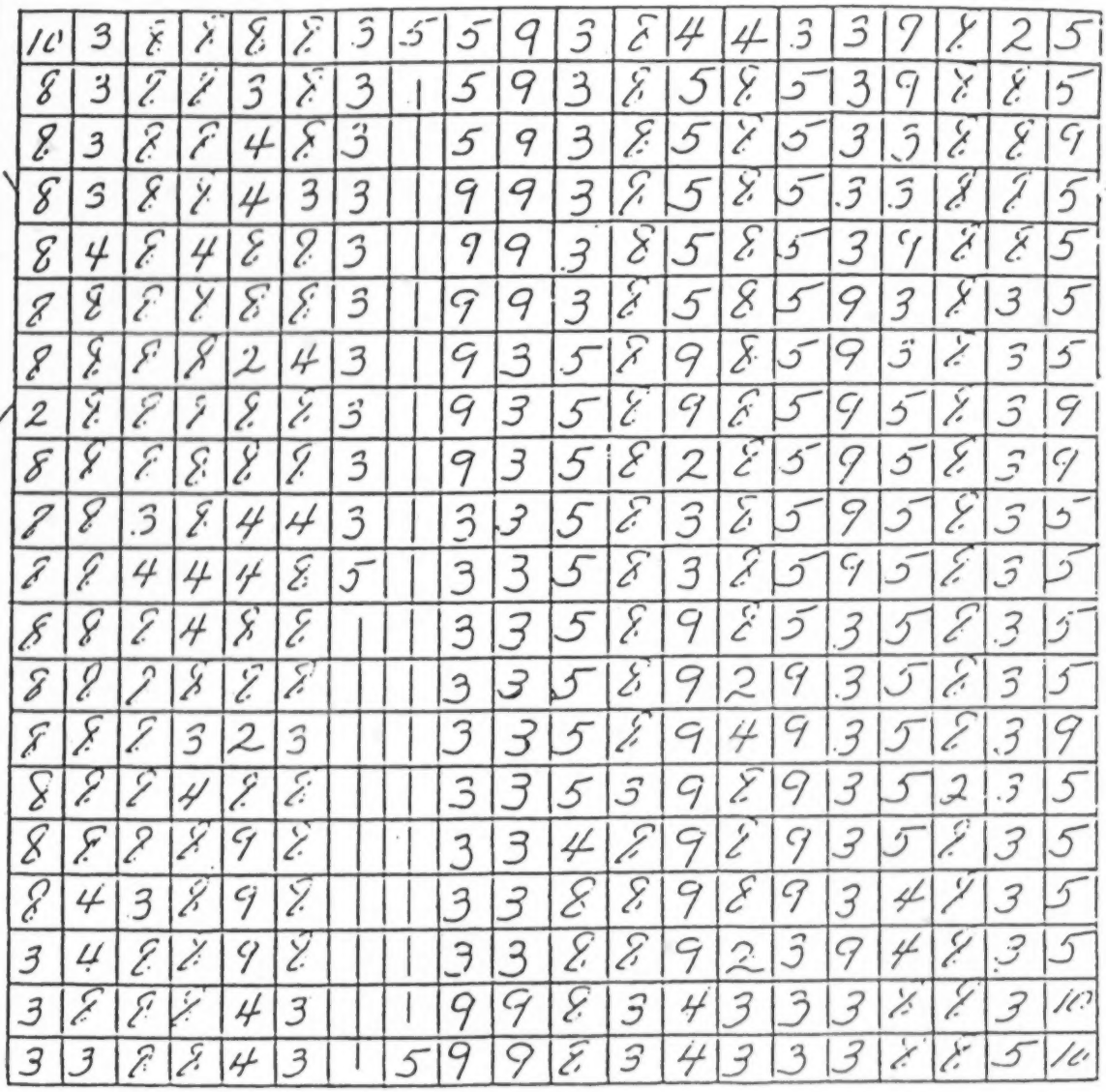
Few would question the fact that what teachers say in the classroom and the way they say it has a significant impact on student learning. In examining 289 empirical studies of teacher effectiveness Donald M. Medley found important differences between effective and

TEACHER TALK	INDIRECT INFLUENCE	1. * ACCEPTS FEELING: accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting or recalling feelings is included. 2. * PRAISES OR ENCOURAGES: praises or encourages student action or behavior. Jokes that release tension, but not at the expense of another individual; nodding head, or saying "um hm?" or "go on" are included. 3. * ACCEPTS OR USES IDEAS OF STUDENTS: clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to Category 5. 4. * ASKS QUESTIONS: asking a question about content or procedure with the intent that a student answer.
	DIRECT INFLUENCE	5. * LECTURING: giving facts or opinions about content or procedures; expressing his own ideas, asking rhetorical questions. 6. * GIVING DIRECTIONS: directions, commands, or orders with which a student is expected to comply. 7. * CRITICIZING OR JUSTIFYING AUTHORITY: statements intended to change student behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.
STUDENT TALK		8. * STUDENT TALK - RESPONSE: talk by students in response to teacher. Teacher initiates the contact or solicits student statement. 9. * STUDENT TALK - INITIATION: talk by students, which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.
		10. * SILENCE OR CONFUSION: pauses, short periods of silence, and periods of confusion in which communication cannot be understood by the observer.

*There is NO scale implied by these numbers. Each number is classificatory; it designates a particular kind of communication event. To write these numbers down during observation is to enumerate--not to judge a position on a scale.

EXHIBIT 10
SUMMARY OF CATEGORIES FOR INTERACTION ANALYSIS

Observer: _____ Date: _____



Summary

Categories

	1	2	3	4	5	6	7	8	9	10	
Totals											

Thursday, March 7, 1974
10:11 - 10:31
Discussion of Reading on Martin Gumpert

EXHIBIT 11 INTERACTION ANALYSIS TALLY SHEET

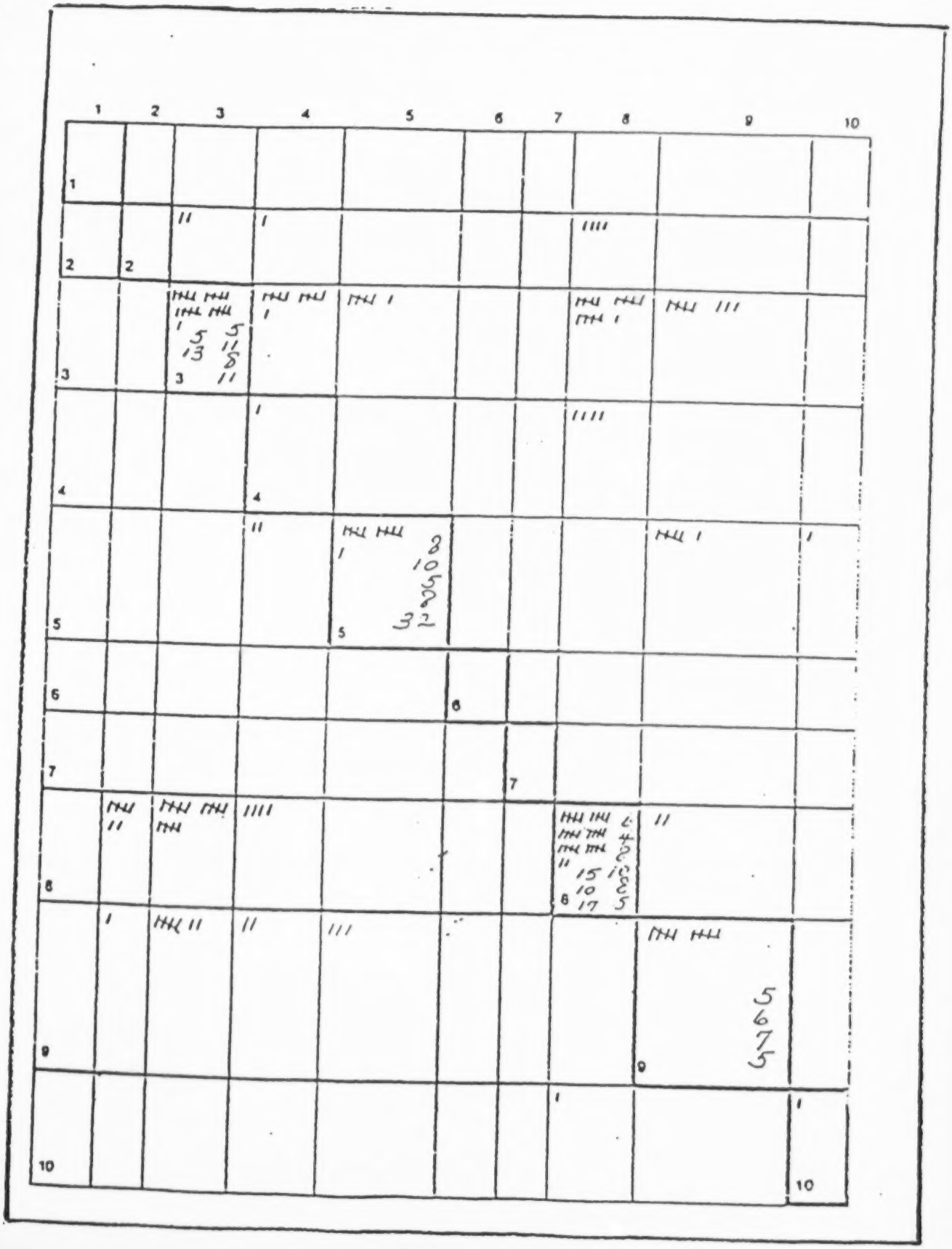


EXHIBIT 12
WORKING MATRIX 24

CLASS CODE NO. _____ OBSERVER _____ DATE _____

CATEGORY	1	2	3	4	5	6	7	8	9	10	TOTAL Tallies
1			1								
2			2	1				4			7
3			74	11	6			16	8		115
4				1				4			5
5				2	74				6	1	83
6											
7											
8		7	15	4				115	2		143
9		1	7	2	3				33		46
10										1	1
TOTAL TALLIES		8	98	21	83			139	49	2	406
INCIDENTS											
Percent of Total		31			20			47		2	
		Teacher Total: 51						Student Total 47		Silence 2	

EXHIBIT 13 FINISHED MATRIX

ineffective teachers relating to questioning techniques, response to student answers, the use of praise, rebukes, and criticism of student work and behavior.8

The techniques presented in this chapter focus on teacher talk. Suggestions are included for making complete verbatim transcripts of lessons observed as well as techniques for compiling selective verbatim transcripts, word-for-word transcriptions of selective teacher talk such as questions, directions, response to pupil talk, and comments relating to classroom control, and the teacher's cognitive clarity.

Total Verbatim Transcripts

Total verbatim involves making a record of exactly what is said during a given period of observation. The recording may be done with pencil and paper or through the use of an audio or video-tape recorder.

Individually devised shorthand, a good memory, natural classroom pauses, repetition, and a sharp pencil can assist a supervisor in compiling an accurate pencil and paper record of the talk in the classroom. Supervisors who use this technique successfully tend to use one of the following short cuts:

1. Write using symbols (s-student, x-ask, u-you, fnshd finished).

2. Transcribe main idea of each interaction and rely on their memory to fill in the rest of the statement by using ...or...

The technique is not as impossible as it sounds.

A video-tape recorder allows the supervisor to also make a recording of the teacher's nonverbal behavior. The video tape recorder can be set up at the rear or side of the classroom, focused for a fixed position, and turned on when needed. Because of its conspicuousness with students and the concern which often arises with some teachers, it is wise to have a teacher use it for a trial period before it is used for supervisory purposes. During this period the teacher might view the tape by himself or herself or with students.

The audio-tape recorder can be placed on the teacher's desk or chair and, if desirable, out of the sight of children. As with video recording, it is wise to give the teacher the opportunity of recording and listening to himself or herself before using the technique for supervisory purposes.

Any total verbatim technique has value only if it is used with some systematic analysis of the talk. The sharing of the transcript or recording without comment is an important first step in the post- observation conference. The discussion and analysis should relate back to the purposes agreed upon during the preobservation conference.

Total verbatim, particularly through an audiotape recorder, is an effective self-help device for the teacher as a follow-up to improve patterns or problems that are identified in the formal observation cycle.

SELECTIVE VERBATIM TRANSCRIPTS

A modification of the verbatim transcript technique, selective verbatim enables the supervisor to provide a mirror to the teacher of what has been said to the students. It focuses attention on specific verbal behaviors rather than all of the interaction that occurs in the classroom.

This focus on specific verbal behavior enables the teacher to work to improve one element of instruction at a time.

The technique may be employed as a follow-up to a recurring problem, pattern, or behavior identified in a total verbatim transcript or it may be used as a result of the discussion during a preobservation conference that identifies teacher questions, responses, directions, or discipline as the focus of the supervisory cycle.

Selective verbatim is a relatively simple technique to use. The supervisor makes a pencil and paper word-for-word transcription of the behavior which has been selected for analysis. In those cases where the supervisor cannot keep up with the verbal interaction, a symbol such as ... can be used to indicate where the verbatim recording stopped temporarily. Since the technique attempts to provide a verbal mirror for the teacher, it is essential that the image or transcript be accurate and not paraphrased. Specific suggestions on the use of the technique with different verbal behaviors follow.

PHRASING QUESTIONS

In analyzing a selective verbatim transcript of teacher questions it is possible to note both the way a teacher phrases questions as well as the thought level of the questions.

The way a question is phrased may have a significant impact on the resultant student response. Teachers may show a pattern of asking questions which are incomplete, require guessing, cue students, or are rhetorical, multiple, run-on, or repeated in nature.9

A teacher who asks an incomplete, indefinite, or fragmented question has the effect of not focusing the student response. "How about Roosevelt?" "What about that way of solving equations?" and "Why is that so?" are examples of questions which are incomplete or indefinite about the intended response.

Some questions are phrased in a way which require students to guess at the correct response. The following is an example of a pattern of questioning that encourages students to guess what the teacher is thinking even though there may be several possible answers: "What do they call material which allows light to pass through it?" (After a student response such as "pellucid," the teacher says, "No, I'm thinking of something else, what is it?")

At times a teacher may show a pattern of asking several different questions in succession without permitting time for the students to respond. The following is an example of a pattern of asking multiple questions: "What is the square root of four? Is this ever a negative number? Why is this true?" Note that these are different questions and not a restating of the same question.

A fourth pattern is asking questions of the kind that are not intended to be answered. Rhetorical questions result in no student response. For example, "Why should the federal government invest in job training programs? Job training programs enable the unemployed to develop skills which will make them employed and therefore able to pay federal taxes and not be a burden through unemployment compensation." "Should you ever shout 'Fire!' in a crowded theater when there is no fire?" Other noncontent rhetorical questions are commonplace. "Are you ready to begin?" "Charlie, will you close the window?" "Stella and Andria, are you going to join us?"

Another possible pattern of asking questions tends to provide clues for answering. Teachers are asking cue or clue questions when they exhibit a pattern of the following type of

question: "Columbus discovered America in what year .... fourteen ninety-what?" "Why did the Spanish establish colonies in the new world? I mentioned this earlier. It had to do with religion ... "

A teacher who uses a pattern of questioning which obscures and changes the content focus may be asking run-on or interrupted questions. These questions often contain intervening, unrelated, or trivial information. For example: "If you had, assuming this was possible, though it probably isn't, all the grains of sand in the world stacked up ... if you had time, that is ..."

A selective verbatim transcript might show still another pattern in which the teacher habitually repeats a question word for word before calling on a student. Repeated questions are not conducive to a well-paced discussion.

Selective verbatim transcripts are good mirrors for helping teachers identify some patterns of their questioning that relate to the way their questions are phrased. If the pattern matches the agreed upon intent, the questioning is appropriate to the rationale. If it doesn't, then suggestions can be made for improvement.

THOUGHT LEVEL OF QUESTIONS

Since the publication in 1956 of Bloom, et al, The Taxonomy of Educational Objectives, Cognitive Domain, much attention has been placed on the nature of questions raised by teachers.[10] Questions have been classified using several category systems. Bloom divided the thinking tasks that questions demand into knowledge, comprehension, application, analysis, synthesis, and evaluation. Bloom's category system is illustrated in Exhibit 14.[11] Norris Sanders adapted the Bloom taxonomy and organized a clasification scheme of thinking into seven areas including memory, translation, interpretation, application, analysis, synthesis, and evaluation.[12] Catherine Cornbleth considered questions both in their thought level and when they occur in a discussion and identified them as personal belief/experience, memory, comprehension, creative expression, judgment, and follow-up.[13] Cornbleth's research indicates that comprehension, creative expression, judgment, and follow-up questions are appropriate during the initiation, development, or synthesis phase of a discussion; personal belief/experience questions more appropriate in the initiation and development phases, and memory questions usually only in the development phases. The simplest category system has only two classifications: lower order and higher order. Lower order or fact questions require students to draw on their memories to recall facts or data stated in the curriculum materials they have been presented. Contrastly, higher order or thought questions demand students to think about what they have read, seen, or have been told and then state their own ideas.

In a meta analysis of research done on the effectiveness of lower order or higher order questions, Meredith Gall concluded that greater use of lower order questions is more effective for enhancing the achievement of young disadvantaged children whose instruction focuses on mastery of basic skills. Average and more able students, particularly at the secondary school level where more independent thinking is required, benefit more when the questioning emphasis is on higher order questions[14].

Note the nature of the questions in Lesson A of Exhibit 15 compared to the kind of thinking which the questions in Lesson B demand.

The effectiveness of the thought level of the questions reviewed in a selective verbatim can only be judged by analyzing them in terms of the teacher's objectives for the lesson. This

once again points out the critical value of the preobservation conference. If the teacher's intent is to review the previous day's lecture on important people and events contributing to the growth of nationalism, it is very likely the questions will be lower order or fact questions that require memory or recall. If the lesson seeks to compare nationalism in two historic periods or countries, it is possible that the questions would go beyond the lower level types, while if the teacher were attempting to have students predict the impact of nationalism for the twenty-first century, the questions, of course, would be very different.

PROVIDING FEEDBACK

The research by Medley cited earlier found that another major difference between effective and ineffective teachers was that effective teachers provided more praise to student work. Positive reinforcement of a behavior increases the likelihooid that the behavior will recur. Teachers who often provide feedback and reinforce students during class discussions draw more participation from students than teachers who reinforce infrequently.

A supervisor can make a selective verbatim transcript of teacher response (feedback/reinforcement) by recording word for word those phrases the teacher makes immediately following a student's contribution. If the response is lengthy this can be achieved by writing down the first six words (or any other number selected arbitrarily) or the first phrase a teacher makes following a student contribution.

In analyzing a selective verbatim transcript of teacher feedback during a postobservation conference, help the teacher identify any pattern which may occur. For example some teachers' responses may provide positive verbal reinforcement such as "good," "fine," "excellent," or "that's right." These remarks indicating teacher satisfaction should correspond to the adequacy of the response or not be disproportionate. Teacher response may also provide positive qualified reinforcement by differentiating reinforcing acceptable parts of a response. For example:

T: Selma, how is yellow fever transmitted?

S: I think - by flies.

T: You're right, it's an insect that carries the disease but

it's not a fly. What else could it be?

The word-for-word repetition of student answers shows up easily on a transcript as do habitual remarks such as "okay," "all right," "yeah," and "aha."

Exhibit 16 shows feedback provided during a ninth grade science lesson. In analyzing it, note the technique the teacher uses to provide positive reinforcement. Note also the use of a habitual remark.

GIVING DIRECTIONS

Selective verbatim transcripts can be useful in helping a teacher analyze the directions given to students, particularly if the teacher has a pattern of having to clarify the directions or repeat them several times to individuals or the class as a whole. In employing this technique the supervisor writes down word for word the directions the teacher gives to the class being observed. The transcript can be analyzed with the teacher in terms of intent and the success

I. KNOWLEDGE

A. Emphasizes remembering by recall or recognition; should not be too different from way in which knowledge was originally learned.

B. Behavioral Tasks
   1. Defines
   2. Recalls
   3. Lists
   4. Recognizes

II. COMPREHENSION

A. Emphasizes a grasping of the meaning of the material; deals with content.

B. Involves the ability to interpret or translate from abstract to simple phrases or a generalization.

C. Behavioral Tasks
   1. States in own words ...
   2. Gives an example of ...
   3. Illustrates ...
   4. Describes ...
   5. Summarizes ...
   6. Interprets ...

III. APPLICATION

A. Applies what is remembered and comprehended.

B. Applies learning to real life problems.

C. Behavioral Tasks
   1. Chooses appropriate procedure ...
   2. Applies a principle ...
   3. Uses an approach ...
   4. Identifies the solution ...

IV. ANALYSIS

A. Breaks material into constituent parts and detects relationship of the parts to each other and to the whole.

B. Distinguishes fact from hypothesis and from value statements.

C. Identifies conclusions and generalizations.

D. Separates relevant from trivia.

E. Differentiates one symbol from another symbol.

F. Behavioral Tasks
   1. Analyzes
   2. Identifies
   3. Discriminates between
   4. Discovers
   5. Detects

EXHIBIT 14 BLOOM SIMPLIFIED

V. SYNTHESIS

A. Learner may exhibit creative behavior.

B. Emphasizes originality.

C. Organizes ideas into new patterns.

D. Tries various approaches.

E. Example: Ability to plan a unit for a particular situation or develop a personal theory.

F. Ability to use results of research in solving a problem.

G. Behavioral Tasks
   1. Develops a plan . . . .
   2. Writes an essay . . . .
   3. Makes up a story . . . .
   4. Designs a machine . . . .

VI. EVALUATION

A. Makes a judgment concerning the value of ideas, principles, methods, solutions, etc.

B. Uses criteria.

C. May precede acquiring new knowledge or occur at any other level.

D. Not opinions.

E. Broadens foundations for making judgment.

F. Recognizes fallacies.

G. Behavioral Tasks
   1. Compares . . . .
   2. Judges . . . and supports . . .
   3. Determines the best possible . . . .
   4. Applies criteria . . . .

EXHIBIT 14 (continued)
BLOOM SIMPLIFIED

Lesson A

T: Normandy was where?

T: Was Harold a weak or strong king?

T: How about if 5 or 6 lords banded together?

T: Does he do anything else?

T: What was the Domesday Book?

T: These kings were called what?

T: Who were the "do nothing" kings?

T: He set up the what?

T: What kind of courts?

T: What was common law?

T: What are circuit courts?

T: Any questions?

Lesson B

T: There is another word that is more inclusive than sarcasm. What is it?

T: What is essentially the difference between sarcasm and irony?

T: Here's an example. Let's say that you are standing in the parking lot after an exhibition game between the New England Patriots and the University of Lowell and you heard people say "Wasn't that ironic -- that was the most ironic game I've ever seen." What would have had to have happened for people to be justified in calling it ironic?

T: Why would that be ironic?

T: Now can you think of other examples of irony?

T: What's ironic about that? Someone analyze that for us.

EXHIBIT 15 32
THOUGHT LEVEL OF QUESTIONS

of the students in fulfilling the directions provided. Follow up discussions might also include jointly working out ways in which the directions could have been reworded.

SEEKING CONTROL

Discipline or structuring comments are also easily recorded for a selective verbatim transcript. The technique may be employed as a result of a discussion during a preobservation conference when the teacher identifies classroom control as a problem or spontaneously if the supervisor observes a pattern developing. The transcript is made by making a selective verbatim of each teacher's remark relating to control or discipline. The postobservation conference would then examine the transcript for patterns and discuss alternatives. The mirror which the transcript provides may also reveal some problems or problem children of which the teacher may not be aware. An example of a middle school classroom transcript is shown in Exhibit 17.

ORGNIZATION AND MANAGEMENT

How is the class organized and managed?

Effective teachers organize and manage their classes so that students spend their time productively. Lessons are skillfully orchestrated and productive. These structured classrooms with their emphasis on direct instruction have been found to have a positive impact on student achievement. Such classes are not joyless or devoid of humor or sensitivity to students but rather well organized and businesslike in their approach to instruction.15

COGNITIVE CLARITY IN PRESENTATION

The cognitive clarity of a teacher's presentation has been shown to have a direct effect on learning.16 A modified selective verbatim transcript can help determine the teacher's verbal fluency, ability to explain clearly, grasp of what is being taught, use of language and the factual and thorough knowledge of the subject matter. The format outlined in Exhibit 18 is a modification of an instrument developed by John J. Collins.17 In using this modified form of selective verbatim, the supervisor records word-for-word examples of teacher statements that relate to some of the major elements in a lesson along with factual statements describing student response.

During the postobservation conference the supervisor and teacher can review the transcript and descriptive statements to determine to what extent the teacher clearly demonstrated the behavior and whether or not the behavior was appropriate for the class.

LESSON DESIGN

Madeline Hunter has identified seven elements that contribute to effective, well managed lessons. These characteristics become evident as a result of a series of decisions that teachers make in planning and teaching.18 The observation technique illustrated in Exhibits 19 and 20 involves identifying teacher talk or activities related to each of Hunter's attributes. These critical elements include: (1) anticipatory set - development of a mental set through a motivation or transition activity that establishes student readiness for learning; (2) statement of objectives - sharing with the students what they will be able to achieve as a result of the

T: Very good, what did she say Greg?

T: Yeah.

T: Positive and negative.

T: Say that again.

T: Yeah.

T: Radicals are . . . .

T: Yeah.

T: All right . . . .

T: You're correct.

T: Yeah.

T: Oh -- very good.

T: Right.

T: Yeah.

T: It's a good question.

T: Yeah.

EXHIBIT 16 TEACHER FEEDBACK

lesson and why it is important to them (not the activity they are going to do but rather the skill or concept they will develop); (3) input - the formal or direct instruction about the knowledge, process or skill that needs to be acquired; (4) modeling - the demonstration or application of that skill or concept so that students can see it in action; (5) checking for understanding - progress check by the teacher to assure the students comprehend the concept or are ready to use the skill; [may occur independent of or simultaneously with next element;] (6) guided practice - application or practice of the learning under the direct guidance of the teacher who might provide additional input at this stage for a small group of students who are not ready; and (7) independent practice - application or practice by students without support or guidance by the teacher only after the teacher is reasonably confident that the students will not make serious mistakes.

Not all steps may be evident in all lessons, but if elements are excluded, their exclusion comes about as a result of the conscious decision of the teacher. There may be occasions when the complete set of elements takes more than one day or involves outside work.19 Analysis of the data in Exhibit 20 during a postobservation conference would indicate that the teacher incorporated all seven of the elements in this lesson.

TEACHER MOVEMENT

Teacher movement is illustrated in Exhibit 21. It shows a model for recording the teacher's movement within the classroom. In applying this technique the observer uses a classroom seating chart to record the location of the teacher in the room every three minutes for the duration of the observation or, if preferred, each time the teacher changes his or her location. The data collected must be interpreted in light of the purposes of the lesson and the strategies employed. The technique is especially effective when used with a log. In Exhibit 21 consideration would be given to the fact that the lesson had students working with learning activity packages and what the role of the teacher should be as the students are working individually. The postobservation conference might focus on the correlation between what would have been desirable movement during such an activity and whether or not it occurred.

GENERATING ENTHUSIASM OR INTEREST DURING PRESENTATION

The effect of a teacher's enthusiasm has been found to have a positive impact on student learning in several studies.20 The research based on both observer ratings as well as student ratings of the teacher's involvement or excitement in the lesson, has indicated that enthusiasm is an important variable. Enthusiasm can manifest itself as a teacher's sense of humor, the transfer of relevant and interesting real life situations into the classroom, maintaining a stimulating and attractive classroom environment, and the intellectual stimulation that a teacher provides.

The enthusiasm, excitement, and interest which a teacher generates can easily be "felt" by the supervisor during an observation. Its absence as evidenced by students gazing out the window, asleep on their desks, or talking to their classmates can also be observed. Exhibit 22 shows an instrument which the supervisor can use to gather objective data on the ability of the teacher to generate enthusiasm or create interest in the lesson.

T: Quiet down, please.

T: Mike, settle down.

T: Quiet!

T: Now, I want it to be quiet.

T: Quiet, please, Michael.

T: Quiet please. I have your tests.

T: I said quiet please.

T: Michael, please be quiet.

T: Quiet, Jen.

T: I will not pass out any more tests until it is quiet.

T: All right, now, quiet down.

T: Jennifer, get back in your seat.

T: I said there was to be quiet while we worked today and I meant it.

T: Ken, please turn around.

T: Michael McNally, I've told you to be quiet!

EXHIBIT 17 CLASSROOM CONTROL

Teacher's Name_____ Date_____

Observer's Name_____Activity_____

Selective verbatim from lesson relating to the following elements of lesson and/or factual statements relating to student response:

Introduction relating to previous lessons, providing an overview, and why important_____

Lecture/presentation of materials_____

Distinction between points of primary and secondary importance____

Use of examples to show application_____

EXHIBIT 18 COGNITIVE CLARITY IN PRESENTATION

Use of chalkboard, overhead projector or newsprint to keep track of major points _____

Check to see if students understand points presented _____

Vocabulary and use of terms _____

Directions _____

EXHIBIT 18 (continued) COGNITIVE CLARITY IN PRESENTATION

Summary Statement_____

_____

_____

_____

_____

_____

Statement of the assignment/homework_____

_____

_____

_____

_____

_____

EXHIBIT 18 (CONTINUED) COGNITIVE CLARITY IN PRESENTATION

Teacher _____ Date _____

Activity _____ Observer _____

Anticipatory Set

Statement of Objectives

Input

Modeling/Demonstration

Checking for Understanding

Guided Practice

Independent Practice

EXHIBIT 19 LESSON DESIGN

Teacher _____ Date _____

Activity Introduction of Subtraction with Regrouping Observer _____

Anticipatory Set

Student given example

$$\begin{array}{r} 493 \\ -185 \end{array}$$

Unable to solve

Statement of Objectives

"Today you will learn how to subtract numbers such as these."

Input

(1) Example on board
(2) Place value manipulatives - packets of ten - regrouped
(3) Repeated on chalkboard
(4) Another example

Modeling/Demonstration

$$\begin{array}{r} 864 \\ -445 \end{array} \qquad \begin{array}{r} 326 \\ -119 \end{array}$$

Done with students with manipulatives

$$\begin{array}{r} 255 \\ -126 \end{array}$$

Done on chalkboard

total class

Checking for Understanding

Students at chalkboard doing examples - others at seats. Teacher moves around room. Whole class reviews boardwork.

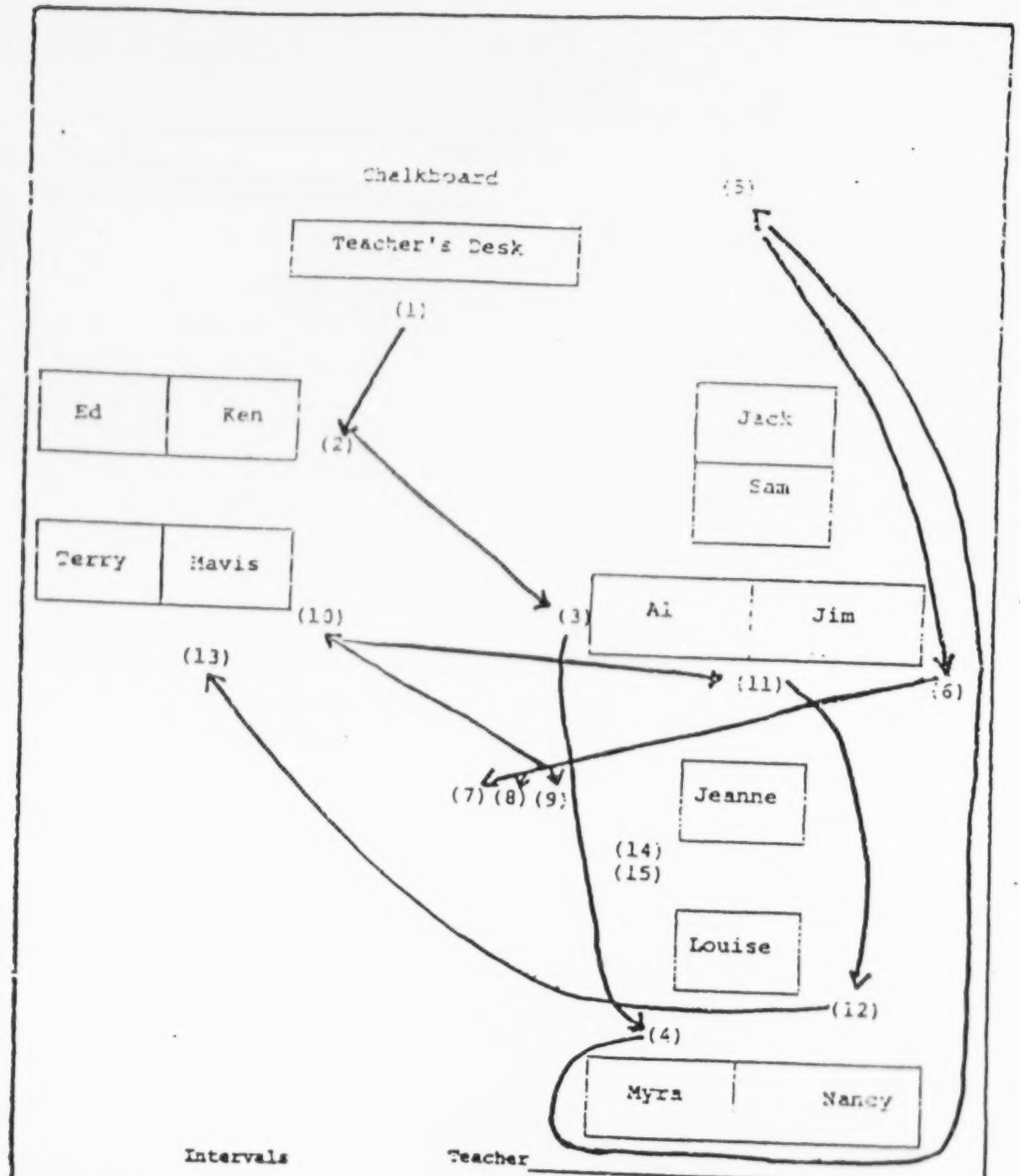
Guided Practice

All students given three examples; teacher monitors

Independent Practice

Worksheet given for homework

EXHIBIT 20 LESSON DESIGN: MATH LESSON



Intervals		
1 - 8:17	7 - 8:35	13 - 8:53
2 - 8:20	8 - 8:38	14 - 8:56
3 - 8:23	9 - 8:41	15 - 8:59
4 - 8:26	10 - 8:44	
5 - 8:29	11 - 8:47	
6 - 8:32	12 - 8:50	

Teacher _____

Observer _____

Date _____

Activity Individual work on learning activity packages

EXHIBIT 21
TEACHER MOVEMENT

Teacher's Name_____Date_____

Observer's Name_____Observation Period_____

Selective verbatim from lesson relating to the following elements of lesson and factual statements relating to student response.

1. Use of relevant and interesting real life situations in the classroom.

2. Sense of humor

3. Intellectual stimulation

EXHIBIT 22 ENTHUSIASM AND INTEREST

4. Description of student verbal or nonverbal behavior relating to enthusiasm or interest.

5. Description of elements in classroom such as tack board displays and learning centers that contribute to generating interest.

EXHIBIT 22 (continued)
ENTHUSIASM AND INTEREST

SUMMARY

This guide has presented fifteen observation techniques that supervisors can employ with teachers to provide "mirrors" of the teaching and learning process in their classrooms. The techniques were selected to mirror those variables that research has found to have the greatest impact on teaching effectiveness.

The supervisory style inherent in the use of the techniques is one which allows the supervisor to deal with facts and not inferences in observing teacher behavior. Effective use of the techniques contributes to the development of a trust relationship between supervisors and teachers which in turn encourages teachers to take a sincere interest in examining their effectiveness in achieving specific objectives in the classroom.. Effective use of the techniques provides teachers with objective information that will help them find answers to questions that they themselves have posed about teaching and learning. Effective use of the techniques should ensure more relevant supervision that in turn results in the overall improvement of instruction.

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